



Preparation of Equipment for Transportation, Shop Repairs, and Storage

**Safety Topic of the Month
Richmond Refinery**

November 2009

Richmond Refinery Recent Incident

NLI # 1664430



“While disassembling P-143A 13 stage pump at machine shop, liquid dripping from pump caught fire. The fire source was a torch used to heat up and loosen impeller from shaft.”

- No one was injured, and the fire was extinguished by workers in the area. However, preliminary investigation findings revealed that this piece of equipment did not have a complete tag. Additionally, other pieces of equipment have recently been delivered to the Machine shop with incomplete tags.



RI-304 Refresher Training

This month your group has the choice to use this Safety Topic of the Month as Refresher Training for RI 304. Please complete the enclosed sign in sheet and have the sheet mailed to Diane Vodenik.

Sign in sheet

After a review of this material, personnel will be able to

1. Describe the Purpose of RI-304.
2. Describe the "Equipment Shipping Tag" and when it is utilized.
3. Describe the individual responsibilities associated with the "Equipment Shipping Tag".



As stated in RI- 304

Identification and communication is required when any process equipment, including pipe, is transported or handled by Motor Transport.

RI-304.2.2 - All process equipment, including pipe, which is to be transported inside and/or sent outside the Refinery will be tagged with a multicolored (blue, yellow, white) "Equipment Shipping" (MFG-7254) tag. This tag will clearly indicate the contaminating chemical(s) name, plant, and/or process stream, and if necessary, protective clothing to be worn by person(s) handling the equipment.

This applies whether the process equipment or pipe is hazardous or non hazardous.



The Purpose of RI-304

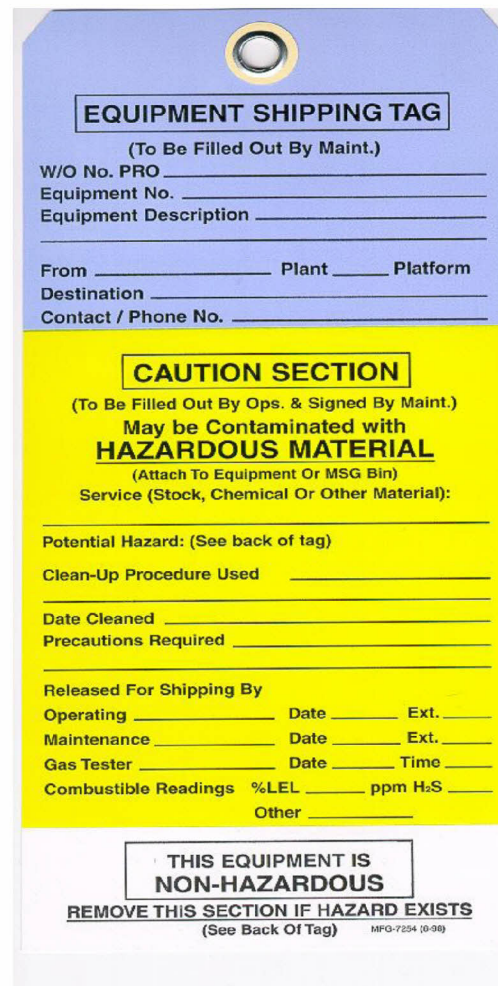
The purpose of RI-304 is to identify the tagging requirements and responsibilities for transportation of process equipment and piping. We must identify and communicate whether process equipment or piping is hazardous or non-hazardous every time it is transported.

* Please remember Material Safety Data Sheet (MSDS) Locations of Master Sets;

- Plant Protection
- Services (Environmental Services) Room 338
- Refinery Shift Coordinator's Office
- Hazardous Waste Division Office
- All control room's have MSDS's for chemicals in the unit

Equipment Shipping Tags

All process equipment and piping which is to be transported inside and/or outside of the refinery must be tagged with a multi-colored "Equipment Shipping Tag".



EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)

W/O No. PRO _____
Equipment No. _____
Equipment Description _____

From _____ Plant _____ Platform _____
Destination _____
Contact / Phone No. _____

CAUTION SECTION
(To Be Filled Out By Ops. & Signed By Maint.)
May be Contaminated with HAZARDOUS MATERIAL
(Attach To Equipment Or MSG Bin)
Service (Stock, Chemical Or Other Material): _____

Potential Hazard: (See back of tag) _____
Clean-Up Procedure Used _____
Date Cleaned _____
Precautions Required _____

Released For Shipping By
Operating _____ Date _____ Ext. _____
Maintenance _____ Date _____ Ext. _____
Gas Tester _____ Date _____ Time _____
Combustible Readings %LEL _____ ppm H₂S _____
Other _____

THIS EQUIPMENT IS NON-HAZARDOUS
REMOVE THIS SECTION IF HAZARD EXISTS
(See Back Of Tag) MFG-7254 (0-98)

EQUIPMENT SHIPPING TAG

Contains three distinct areas which reflect the state of the equipment to be transported.



FRONT

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)
W/O No. PRO _____
Equipment No. _____
Equipment Description _____
From _____ Plant _____ Platform _____
Destination _____
Contact / Phone No. _____

CAUTION SECTION
(To Be Filled Out By Ops. & Signed By Maint.)
**May be Contaminated with
HAZARDOUS MATERIAL**
(Attach To Equipment Or MSG Bin)
Service (Stock, Chemical Or Other Material): _____
Potential Hazard: (See back of tag) _____
Clean-Up Procedure Used _____
Date Cleaned _____
Precautions Required _____
Released For Shipping By
Operating _____ Date _____ Ext. _____
Maintenance _____ Date _____ Ext. _____
Gas Tester _____ Date _____ Time _____
Combustible Readings %LEL _____ ppm H₂S _____
Other _____

**THIS EQUIPMENT IS
NON-HAZARDOUS**
REMOVE THIS SECTION IF HAZARD EXISTS
(See Back Of Tag) MFG-7254 (8-08)

Blue Area

Yellow Area

White Area

BACK

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)
Problem Description / Repair _____
Test Results / Calibration _____

CAUTION SECTION
(To Be Filled Out By Ops.)
**May be Contaminated with
HAZARDOUS MATERIAL**
(Attach To Equipment Or MSG Bin)
Checks ☒ Denotes Potential Hazard

Flammable Or Explosive	
Combustible	
Acid	
Caustic	
Other Corrosive	
Arsenic	
Benzene	
H ₂ S	
Other Toxics	
Pyrophoric Iron	
None (Non-Hazardous)	

Chevron MSDS No. (If Applicable) _____

**THIS EQUIPMENT IS
NON-HAZARDOUS**
REMOVE THIS SECTION IF HAZARD EXISTS

EQUIPMENT SHIPPING TAG

Contains three distinct areas which reflect the state of the equipment to be transported.



FRONT

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)

W/O No. PRO _____
Equipment No. _____
Equipment Description _____

From _____ Plant _____ Platform _____
Destination _____
Contact / Phone No. _____

CAUTION SECTION
(To Be Filled Out By Ops. & Signed By Maint.)
**May be Contaminated with
HAZARDOUS MATERIAL**
(Attach To Equipment Or MSG Bin)
Service (Stock, Chemical Or Other Material): _____

Potential Hazard: (See back of tag) _____
Clean-Up Procedure Used _____

Date Cleaned _____
Precautions Required _____

Released For Shipping By _____
Operating _____ Date _____ Ext. _____
Maintenance _____ Date _____ Ext. _____
Gas Tester _____ Date _____ Time _____
Combustible Readings %LEL _____ ppm H₂S _____
Other _____

**THIS EQUIPMENT IS
NON-HAZARDOUS**
REMOVE THIS SECTION IF HAZARD EXISTS
(See Back Of Tag) MFG-7254 (9-08)

WHITE SECTION:

The bottom section of the Equipment Shipping Tag is a white detachable section indicating "Non-Hazardous".

White Area

BACK

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)

Problem Description / Repair _____

Test Results / Calibration _____

CAUTION SECTION
(To Be Filled Out By Ops.)
**May be Contaminated with
HAZARDOUS MATERIAL**
(Attach To Equipment Or MSG Bin)

Checks ☒ Denotes Potential Hazard

Flammable Or Explosive	
Combustible	
Acid	
Caustic	
Other Corrosive	
Arsenic	
Benzene	
H ₂ S	
Other Toxics	
Pyrophoric Iron	
None (Non-Hazardous)	

Chevron MSDS No. (If Applicable) _____

**THIS EQUIPMENT IS
NON-HAZARDOUS**
REMOVE THIS SECTION IF HAZARD EXISTS

EQUIPMENT SHIPPING TAG

Contains three distinct areas which reflect the state of the equipment to be transported.



FRONT

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)
W/O No. PRO _____
Equipment No. _____
Equipment Description _____
From _____ Plant _____ Platform _____
Destination _____
Contact / Phone No. _____

CAUTION SECTION
(To Be Filled Out By Ops. & Signed By Maint.)
May be Contaminated with
HAZARDOUS MATERIAL
(Attach To Equipment Or MSG Bin)
Service (Stock, Chemical Or Other Material): _____
Potential Hazard: (See back of tag) _____
Clean-Up Procedure Used _____
Date Cleaned _____
Precautions Required _____
Released For Shipping By
Operating _____ Date _____ Ext. _____
Maintenance _____ Date _____ Ext. _____
Gas Tester _____ Date _____ Time _____
Combustible Readings %LEL _____ ppm H₂S _____
Other _____

Yellow Area – CAUTION SECTION

The bottom section must be removed if any hazards may be present as indicated on the middle Caution section of the "Equipment Shipping Tag".

BACK

EQUIPMENT SHIPPING TAG
(To Be Filled Out By Maint.)
Problem Description / Repair _____
Test Results / Calibration _____

CAUTION SECTION
(To Be Filled Out By Ops.)
May be Contaminated with
HAZARDOUS MATERIAL
(Attach To Equipment Or MSG Bin)
Checks ☒ Denotes Potential Hazard

Flammable Or Explosive	
Combustible	
Acid	
Caustic	
Other Corrosive	
Arsenic	
Benzene	
H ₂ S	
Other Toxics	
Pyrophoric Iron	
None (Non-Hazardous)	

Chevron MSDS No. (If Applicable) _____



Responsibilities

- A plant **Operator** will completely fill in and sign the yellow section of the tag. Insure a contact number is on the tag. Then securely attach complete and place the "Equipment Shipping Tag" on all process
- **Refinery Transportation** will ensure that process equipment and piping is properly tagged each time it is loaded and moved.
- **Shop Personnel** upon receiving equipment or piping, and after completing inspections or repairs, will attach a new "Equipment Shipping Tag" prior to requesting transport by RTD.
- The Operations **Head Operator** concerned will ensure that the operator has properly purged, cleaned, tested, and tagged all process equipment, including pipe, before it is released for transportation. Appropriate Material Safety Data Sheet identification (Chevron MSDS number or vendor chemical name) must be listed on the "Equipment Shipping" tag.
- The **Maintenance Supervisor** in charge of moving the plant equipment will ensure that Maintenance personnel have verified with Operations that all process equipment, including piping, has been properly purged, cleaned completely, tested, and tagged before it is transported. The Maintenance Supervisor or his/her designee will ensure the "blue" section of the shipping tag is filled in and signed.

Common problems

Broken/ Damaged Equipment Tag: Please have operations fill out a new equipment tag before transporting.



Be safe, save time and resources!

- Fill out Transportation Tags carefully and completely.
- Ensure that Transportation Tags are intact, legible, and signed by all responsible parties.
- Attach Transportation Tags to anything that requires motor transport pick up and deliver.
- If a tag is missing or has not been correctly completed, have the situation corrected immediately.





Resources and Questions

The Safety Section is responsible for the information presented in RI-304. For field questions concerning the tag, contact your local Field Safety Coordinator.

[Take a moment to Review the RI - 304](#)



Review TOP Lessons Learned

Learning from our past incidents will help us prevent them in the future. Please take a few minutes now to review the TOP lessons learned.

TOP Lessons Learned